Numb	Description
	DESCRIBED IN TEXT
1	Intracranial Stimulating Electrode
	Intracranial Recording Electrode
	Intracranial Recording Electrode
	Intracranial Catheter
8	Connecting Cable
9	Calvarium
10	Scalp
11	Head-mounted Acoustic Sensor
	Head-mounted Accelerometer
	Positive Proximal EMG Electrode
	Reference Proximal EMG Electrode
	Negative Proximal EMG Electrode
	Proximal Connecting Cable
	Positive Distal EMG Electrode
	Negative Distal EMG Electrode
	Distal Acoustic Sensor
20	Positive Distal EMG Connecting Cable
	Negative Distal EMG Connecting Cable
	Distal Acoustic Connecting Cable
	Enclosure-mounted positive EMG Electrode Enclosure-mounted negative EMG Electrode
	Enclosure-mounted negative EMG Electrode Enclosure-mounted reference EMG Electrode
	Stimulating and Recording Circuit
	Proximal Acoustic Sensor
	Proximal Accelerometer
	Catheter Anchor
	Acoustic Sensor Connecting Cable
	:Accelerometer Connecting Cable
32	Distal Peripheral Nerve Electrode Array connecting
	Distal Accelerometer
	Distal Accelerometer Connecting Cable
	Enclosure-mounted Acoustic Sensor
	Enclosure-mounted Accelerometer .
	Intracranial Stimulating Electrode Array
	Intracranial Recording Electrode Array
	EEG Electrode EEG Electrode
41	EEG Electrode Reference Distal EMG Electrode
	Stimulating and Recording Unit
	Circuit Enclosure
	Proximal EMG Electrode Array
46	Enclosure-mounted EMG Electrode Array
	Distal EMG Electrode Array
	Reference Distal EMG Connecting Cable
. 49	Enclosure-Mounted EMG Electrode Array
	EMG Electrode Array
51	EEG Electrode Array
52	Accelerometer Array
53	Acoustic Transducer Array
	Peripheral Nerve Electrode Array
-	Patient Interface Module
	Supervisory Module
	Intracranial Stimulating Array Amplifier
	Intracranial Recording Array Amplifier
	EMG Electrode Array Amplifier
	EEG Electrode Array Amplifier
	Accelerometer Array Amplifier
	Acoustic Transducer Array Amplifier Peripheral Nerve Electrode Array Amplifier
	Intracranial Stimulating Array Filter
	Intracranial Recording Array Filter
	EMG Electrode Array Filter

umb	Description
	FEO Floring American
	EEG Electrode Array Filter Accelerometer Array Filter
	Acoustic Transducer Array Filter
	Peripheral Nerve Electrode Array Filter
	Signal Processor
	Control Circuit
	Pulse Generator
	Output Amplifier Multiplexor
	Signal Conditioning Circuit
	Output Stage Circuit
	Conditioned EMG signal path
	Conditioned EEG signal path
	Conditioned Accelerometer signal path
	Conditioned Acoustic signal path
	Conditioned Peripheral Nerve Electrode (PNE) sig
	Conditioned Intracranial recording electrode (ICRE Conditioned Intracranial stimulating electrode (ICS
	Spike Detector
	Spike Characterizer
	Spike Analyzer
	Intracranial Recording Electrode Single unit-based
	Spike Detector
************	Spike Characterizer
	Spike Analyzer Intracranial Stimulating Electrode Single unit-base
**********	Disease state estimate signal path
	Globus Pallidus Internus Internal Segment (GPi,i)
	Globus Pallidus Internus External Segment (GPi,e
	Globus Pallidus Externus (GPe)
	Optic Tract
	Proximal Peripheral Nerve Electrode Array
	Distal Peripheral Nerve Electrode Array
	Proximal Peripheral Nerve Electrode Array connect Filter
********	Spectral Energy Characterizer
103	Spectral Energy Analyzer
104	Intracranial Recording Electrode Multiunit-based C
****	Disease State Estimate Path
	Filter
	Spectral Energy Characterizer
	Spectral Energy Analyzer Intracranial Stimulating Electrode Multiunit-based I
	Disease State Estimate Path
	Stimulator Output Path
***********	Stimulator Amplifier Output Path
	Multiplexed Stimulator Recording Input Path
	Stimulating Electrode Input Signal
	Stimulating Electrode Output Signal
	Reference Module Aggregate Disease State Reference Signal Path
	Disease State Reference Signal Path
	Globus Palidus
	Globus Pallidus Internus
121	Thalamus
	Subthalamic Nucleus
	Full Wave Rectifier
	Envelope determiner
	Filter Throchold Discriminator
	Threshold Discriminator Filter
	Threshold Discriminator
129	Filter
	Threshold Discriminator
	Filter
	Threshold Discriminator
	Filter
	Threshold Discriminator

Numbi Description				
135 Integrator				
136 Counter				
137 EMG Analyzer				
138 Electromyography (EMG)-based Disease State Est				
139 Artifact Rejecter				
140 Supplementary Motor Area Signal Extractor				
141 Full Wave Rectifier				
142 Envelope Determiner 143 Filter				
143 Filler 144 Full Wave Rectifier				
145 Envelope Determiner				
146 Filter				
147 Full Wave Rectifier				
148 Envelope Determiner				
149 Filter				
150 Full Wave Rectifier				
151 Envelope Determiner				
152 Filter				
153 Full Wave Rectifier				
154 Envelope Determiner				
155 Electroencephalography (EEG)-based Disease Sta				
156 Filter				
157 Full Wave Rectifier				
158 Envelope Determiner				
159: Threshold Discriminator				
160 Filter 161 Full Wave Rectifier				
162 Envelope Determiner				
163 Threshold Discriminator				
164 Filter				
165 Full Wave Rectifier				
166 Envelope Determiner				
167 Threshold Discriminator				
168 Filter				
169 Full Wave Rectifier				
170 Envelope Determiner				
171 Threshold Discriminator				
172 Filter 173 Full Wave Rectifier				
173 Full Vvave Rectifier 174 Envelope Determiner				
175 Threshold Discriminator				
176 Integrator				
177 Counter				
178 Acceleration Analyzer				
179 Acceleration-based Disease State Estimator				
180 Full Wave Rectifier				
181 Envelope Determiner				
182 Low Threshold Discriminator				
183 High Threshold Discriminator				
184 Timer				
185 Spectral Analyzer				
186 Acoustic Analyzer				
187 Acoustic-based Disease State Estimator				
188 Spike Detector 189 Spike Characterizer				
100 Soike Anglyzor				
191 Filter				
192 Spectral Energy Characterizer				
193 Spectral Energy Analyzer				
194 Peripheral Nerve Electrode (PNE)-based Single Ur				
195 Aggregate Disease State Estimator				
196 Reference Module				
197 Proportional Gain				
198 Differential Gain				
198 Differential Gain 199 Integrator Gain				
198 Differential Gain 199 Integrator Gain 200 Nonlinear Controller Gain				
198 Differential Gain 199 Integrator Gain				

Numb Description
203 Model-Reference Controller Gain
204 Differential Controller
205 Integral Controller 206 Nonlinear Controller
207 Adaptive Controller
208 Sliding Controller
209 Model-Reference Controller
210 Proportional Controller Weight
211 Differential Controller Weight
212 Integral Controller Weight
213 Nonlinear Controller Weight
214 Adaptive Controller Weight
215 Sliding Controller Weight
216 Model-Reference Controller Weight
217 Summator
218 Clock
219 Filter
220 Full Wave Rectifier
221 Envelope Determiner
222 Full Wave Rectifier
223 Envelope Determiner
224 Filter
225 Threshold Discriminator
226 Summator 227 Patient
228 Observor
229 Disease State Estimator Module Array
230 Proportional Controller
231 Control Law Circuit Block
232 Peripheral Nerve Electrode (PNE)-based Multiple U
233 EMG Signal Processor
234, EEG Signal Processor
235: Accelerometer Signal Processor
236 Acoustic Signal Processor
237 PNE Signal Processor
238 ICRE Signal Processor
239 ICSE Signal Processor
240 Memory Module
241 Analog Switch
242 Zener Diode
243 Zener Diode 244 Conection to noninverting input
245 Connection to inverting input
246 Intracranial Electrodes
247 Sensory Input Modalities
248 Neurological Control System
249 Sensor connector cable
1
250.head
251 brain
252 cortex
253 frontal cortex
254 parietal cortex
255 temporal cortex
256 occipital cortex
257 cerebellar cortex
258 orbital cortex
259 prefrontal cortex
260 motor cortex
261 sensory cortex
262 associative cortex
263 werneckie's area
264 brocas area 265 premotor cortex
266 supplementary motor cortex
267 visual cortex
268 V2 cortex

Numbi Description
269 S2 cortex
270 Thalamus
271 globus pallidus
272 glous pallidus internus
273 globus pallidus externus 274 subthalamic nucleus
275 thalamic ventrointermediate nucleus (Vim)
276 cingulate gyrus
277 hippocampus
278 amygdala
279 orbitofrontal modulator 280 prefrontal modulator
281 precentral modulator
282 postcentral modulator
283 parietal modulator
284 parietooccipital modulator
285 occipital modulator 286 cerebellar modulator
287 right parasaggital precentral modulator
288 left parasaggital precentral modulator
289 right lateral precentral modulator
290 left lateral precentral modulator
291 right superior anterior temporal modulator
292 left superior anterior temporal modulator 293 right inferior anterior temporal modulator
294 left inferior anterior temporal modulator
295 right parasaggital postcentral modulator
296 left parasaggital postcentral modulator
297 right lateral postcentral modulator
298 left lateral postcentral modulator 299 right superior temporal modulator
300 left superior temporal modulator
301 right inferior temporal modulator
302 left inferior temporal modulator
303 right parasaggital orbitofrontal modulator
304 left parasaggital orbitofrontal modulator
305 right lateral orbitofrontal modulator 306 left lateral orbitofrontal modulator
307 right parasaggital prefrontal modulator
308 left parasaggital prefrontal modulator
309 right lateral prefrontal modulator
310 left lateral prefrontal modulator
311 right parasaggital parietal modulator 312 left parasaggital parietal modulator
313 right lateral parietal modulator
314 left lateral parietal modulator
315 right superior posterior temporal modulator
316 left superior posterior temporal modulator
317 right inferior posterior temporal modulator 318 left inferior posterior temporal modulator
319 right lateral cerebellar modulator
320 left lateral cerebellar modulator
321 right parasaggital parietooccipital modulator
322 left parasaggital parietooccipital modulator
323 right lateral parietooccipital modulator 324 left lateral parietooccipital modulator
325 right inferior parietooccipital modulator
326 left inferior parietooccipital modulator
327 right parasaggital cerebellar modulator
328 left parasaggital cerebellar modulator
329 right parasaggital occipital modulator
330 left parasaggital occipital modulator 331 right lateral ventricle
332 left lateral ventricle
333 third ventricls
334 corpus callosum
335 right thalamus
336 left thalamus

Numbi Description	
337 right internal capsule	
338 left internal capsule 339 right globus pallidus externus	
340 left globus pallidus externus	
341 right globus pallidus internus	
342 left globus pallidus internus	
343 right globus pallidus internus external	
344 left globus pallidus internus external s	
345 right globus pallidus internus internal	
346 left globus pallidus internus internal se 347 right globus pallidus	egineiii
348 left globus pallidus	
349 deep brain structures	
350 modulator	
351 magnetic coil	
352 magnetic coil cross section	
353 magnetic flux	
354 neural tissue	*
355 optical source array 356 optical source	
357 optical lens	
358 optical beam	
359 dura	
360 modulator support	
361 power supply	i
362 Pulse Generator	•
363 Papez's Circuit	
364 mamillary bodies 365 fornix	
366 orbitofrontal cortex	
367 superior temporal gyrus	
368 trigeminal nerve	
369:vagus nerve	
370:baroreceptor	
371 sympathetic ganglion	1
372 Electromagnetic Coil	
373 Electromagnetic Coil	1
374 Electromagnetic Coil	
375:Magnetic Flux	
376 Magnetic Flux	
377 Magnetic Flux	
378: Power Conversion Unit	
379 Power Cable 380 Coil Holder	
381 Bedding	
382 Skin	
383 Coil Pocket	į
384 Coil Pocket	
385, Coil Pocket	<u> </u>
386. Headband Coil Holder	
387: Electromagnetic Coil	
387: Electromagnetic Coil 388: Electromagnetic Coil	
387: Electromagnetic Coil 388: Electromagnetic Coil 389: Electromagnetic Coil	
387: Electromagnetic Coil 388: Electromagnetic Coil 389: Electromagnetic Coil 390: Electromagnetic Coil	
387: Electromagnetic Coil 388: Electromagnetic Coil 389: Electromagnetic Coil	
387: Electromagnetic Coil 388: Electromagnetic Coil 389: Electromagnetic Coil 390: Electromagnetic Coil 391: Electromagnetic Coil 392: Electromagnetic Coil 393: Electromagnetic Coil	
387: Electromagnetic Coil 388: Electromagnetic Coil 389: Electromagnetic Coil 390: Electromagnetic Coil 391: Electromagnetic Coil 392: Electromagnetic Coil 393: Electromagnetic Coil 394: Electromagnetic Coil Cable	
387: Electromagnetic Coil 388: Electromagnetic Coil 389: Electromagnetic Coil 390: Electromagnetic Coil 391: Electromagnetic Coil 392: Electromagnetic Coil 393: Electromagnetic Coil 394: Electromagnetic Coil Cable 395: Electromagnetic Coil Cable	
387: Electromagnetic Coil 388: Electromagnetic Coil 389: Electromagnetic Coil 390: Electromagnetic Coil 391: Electromagnetic Coil 392: Electromagnetic Coil 393: Electromagnetic Coil 394: Electromagnetic Coil Cable 395: Electromagnetic Coil Cable 396: Power Modulator	
387: Electromagnetic Coil 388: Electromagnetic Coil 389: Electromagnetic Coil 390: Electromagnetic Coil 391: Electromagnetic Coil 392: Electromagnetic Coil 393: Electromagnetic Coil 394: Electromagnetic Coil Cable 395: Electromagnetic Coil Cable 396: Power Modulator 397: Power Source	
387: Electromagnetic Coil 388: Electromagnetic Coil 389: Electromagnetic Coil 390: Electromagnetic Coil 391: Electromagnetic Coil 392: Electromagnetic Coil 393: Electromagnetic Coil 394: Electromagnetic Coil 395: Electromagnetic Coil Cable 396: Power Modulator	
387: Electromagnetic Coil 388: Electromagnetic Coil 389: Electromagnetic Coil 390: Electromagnetic Coil 391: Electromagnetic Coil 392: Electromagnetic Coil 393: Electromagnetic Coil 394: Electromagnetic Coil Cable 395: Electromagnetic Coil Cable 396: Power Modulator 397: Power Source 398: Head	
387: Electromagnetic Coil 388: Electromagnetic Coil 389: Electromagnetic Coil 390: Electromagnetic Coil 391: Electromagnetic Coil 392: Electromagnetic Coil 393: Electromagnetic Coil 394: Electromagnetic Coil Cable 395: Electromagnetic Coil Cable 396: Power Modulator 397: Power Source 398: Head 399: Electromagnetic Coupling Element 400: Power Conversion Circuit 401: Rectifier	
387: Electromagnetic Coil 388: Electromagnetic Coil 389: Electromagnetic Coil 390: Electromagnetic Coil 391: Electromagnetic Coil 392: Electromagnetic Coil 393: Electromagnetic Coil 394: Electromagnetic Coil Cable 395: Electromagnetic Coil Cable 396: Power Modulator 397: Power Source 398: Head 399: Electromagnetic Coupling Element 400: Power Conversion Circuit	

Numbi Description	
403 Regulator	٠.
404 Filter	
405 Demodulator	
406 Amplifier	
407 Electromagnetic Coupling Element Cable	
408 Induced Current 409 Regulated Power	
410 Incoming Data Stream	
411 Outgoing Data Stream	
412 Neuromodulation signal	
413 Power Delivery Unit	
414 Modulator	
415 Amplifier 416 Inducing Current	
417 Power Management Unit	
418 Energy Storage Unit	
419 Stimulation Recording and Power Circuit	
420 Pericranium	
421 Calvarium Outer Table	
422 Calvarium Marrow Layer	
423 Calvarium Inner Table 424 Mechanical Attachment	***********
425: Mechanical Attachment Mount	
426 Enclosure Outer Surface	
427 Enclosure Inner Surface	
428 Screw Mount	
429.Screw	
430 Screw Mount 431 Screw	
432 Protruding Component	
433 Recessed Component	
434 System Enclosure	
435 Brain Surface	
:	
CIP :PDSTIM5-FF2 436 Catheter Mount Ball	
437 Catheter Mount Socket	
438 Bone Screw	
439 Machine Screw	· •···
440 Cranial Attachment Plate	
441 Catheter Recess 442 Calvarum Bit Innder Diameter Segment	
443 Calvarum Bit Outer Diameter Segment	
444 Calvarum Bit Shaft	
445 Calvarum Drill	
446 Calvarum Bit Penetration-Release Segment	
447; Calvarum Drill Bit	
448 Microelectrode Channel 449 Microelectrode	
450 Microelectrode Tip	
451 Intracranial Catheter Proximal End	
Intracranial Catheter 1	
452 Intracranial Catheter Proximal Electrode	
453 Intracranial Catheter Proximal Electrode	
454 Intracranial Catheter Proximal Electrode	
455 Intracranial Catheter Proximal Electrode 456 Intracranial Catheter Proximal Electrode	
457 Intracranial Catheter Proximal Electrode	
458 Intracranial Catheter Proximal Electrode	
459 Intracranial Catheter Proximal Electrode	
460 Electrode Contact	
461 Electrode Contact	
462 Electrode Contact	
463 Electrode Contact 464 Electrode Contact	
465 Electrode Contact	
466 Electrode Contact	
467 Electrode Contact	

Numb Description	
400 Electrode Content Cat Corne	
468 Electrode Contact Set Screw 469 Electrode Contact Set Screw	
470 Electrode Contact Set Screw	
471 Electrode Contact Set Screw	• • •
472 Electrode Contact Set Screw	
473 Electrode Contact Set Screw	
474 Electrode Contact Set Screw	
475 Electrode Contact Set Screw	- an agreement that a solution that there are
Intracranial Catheter 2	
476 Intracranial Catheter Proximal E	lectrode
477 Intracranial Catheter Proximal E	
478 Intracranial Catheter Proximal E	lectrode
479 Intracranial Catheter Proximal E	lectrode
480 Intracranial Catheter Proximal E	lectrode
481 Intracranial Catheter Proximal E	lectrode
482 Intracranial Catheter Proximal E	
483 Intracranial Catheter Proximal E	lectrode
484 Electrode Contact	
485 Electrode Contact	* 10000000 170.164 A 11.000
486 Electrode Contact	
487 Electrode Contact	
488 Electrode Contact	
489 Electrode Contact	
490 Electrode Contact	
491 Electrode Contact	######################################
492 Electrode Contact Set Screw	
493 Electrode Contact Set Screw	
494 Electrode Contact Set Screw	
495 Electrode Contact Set Screw 496 Electrode Contact Set Screw	
497 Electrode Contact Set Screw	
498 Electrode Contact Set Screw	
499 Electrode Contact Set Screw	
500 Intracranial Catheter	CONTRACTOR OF CONTRACTOR OF THE CONTRACTOR OF TH
501 Calvarum Stabilization Lip	
502 Microelectrode Tunnel	
503:Intracranial Catheter Port	
504 Catheter Stabilization Means	
505 Catheter Ball Channel	
506 Catheter Mount System Enclose	
507 Catheter Mount Ball Locking Sc	
508 System Enclosure Catheter Mod	unt Attachment Mea
509 Calvarum Bit Rollers	ALALAMA BARANA BARANA MARANA M
510 Communication and Power Link	
511 Module Communication and Po	
512 Module Communication and Po	
513 Module Communication and Por 514 Module Communication and Por	
515 Module Communication and Po	
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- magni and an	
998 NMS (neuromodulating signal)	
999 Neurological Control System	